

**ABSTRACT**

The present invention involves peptides with memory enhancing activity that are homologous to glucagon, Exendin- and glucagon-like peptides; functional analogs, derivatives, fragments and mimetics of these peptides; methods of synthesizing and modifying such peptides; methods of using such peptides to treat nervous system or neurological disorders and to facilitate learning and memory in mammals; and methods of delivering such peptides to mammals for treatment of nervous system or neurological disorders and for facilitation of learning and memory.